



Infection Control Management Project

Volume 5: Guidelines for

Infection Control in Labour Room

1. Protocols
2. Reference Text
3. Tool for Monitoring

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Infection Control in Labour Room

Adapted by AAA Team from:

1. Manual of National Standards for Family Planning, Prepared by FALAH Project – MOPW, Population Council, Jhpiego, USAID Islamabad
2. National Guidelines for Infection Control by National Aids control program Ministry of Health, Pakistan, 2006.
3. Practical Guideline for Infection Control in Health Care Facilities by WHO.
4. Safe management of wastes from health-care activities (1999): WHO, 1999.
5. WHO Poster, How to Handwash & How to Hand rub, October 2006



Infection Control in Labour Room

You **MUST**

- 1. Keep Labour Room Clean**
- 2. Consider every person**, (client or staff) as potentially infectious and susceptible to infection.
- 3. Wash hands**, for preventing cross-contamination (person to person or contaminated object to person).
- 4. Wear gloves**, (both hands) before touching broken skin, mucous membrane, blood or other body fluids, or soiled instruments and contaminated waste materials, or before performing invasive procedures.
- 5. Use other physical barriers** (protective goggles, face masks, gowns and aprons) if splashes and spills of any body fluids are likely.
- 6. Prevent Needle/Sharp injuries** and use containers for sharps disposal and dispose containers safely
- 7. Use Clean Supplies and sterilized instruments**
- 8. Handle used instruments carefully** and **perform decontamination**
9. Ensure that **soiled linen** is collected and cleaned properly
10. Develop **Shelf Life** System
11. Follow that **waste** is collected and disposed off properly

Reference Text

Standard Precautions as advocated by WHO for health care facilities

Treating all patients in the health care facility with the same basic level of “standard” precautions involves work practices that are essential to provide a high level of protection to patients, health care workers and visitors.

These include the following:

- Hand washing and antiseptics (hand hygiene);
- Use of personal protective equipment when handling blood, body substances, excretions and secretions;
- Appropriate handling of patient care equipment and soiled linen;
- Prevention of needlestick/sharp injuries;
- Environmental cleaning and spills-management; and
- Appropriate handling of waste.

Steps to Protect the Mother During Labour

There are many interventions that can pose a risk of infection to the mother so here are some steps to prevention during labor:

- Keep the vaginal exams to a minimum – the fewer foreign objects introduced to the birth canal during labor the less chance of infection to the mother and baby. This includes both hospital contaminants and any existing bacterium or virus that is on the mother’s skin.
- Request that the staff wash their hands before touching the mother, every time.
- The nurse and/or doctor should be wearing a full gown, gloves and mask when performing invasive tasks such as inserting a bladder catheter.
- Anyone that enters the room should thoroughly wash his hands before touching the mother or her partner.
- Attendants that are sick should avoid exposure to the mother.

1. Ensure Cleanliness of Labour Room

Labour room must be kept clean. This means that there is NO dust, cobwebs, blood, trash, used needles and syringes or bandages, etc on the floor, walls, roof or fixtures and furniture.

Routine cleaning is important to ensure a clean and dust-free labour room environment. There are usually many micro-organisms present in “visible dirt”, and routine cleaning helps to eliminate this dirt. The area should be cleaned by wet mopping.

Check infrastructure, making sure that there is no crevices and cracks on floors, no seepage on walls, and no leakage from the roofs.

General Principles

- **Scrubbing (frictional cleaning)** is the best way to physically remove dirt, debris and microorganisms.
- **Cleaning** is required prior to any disinfection process because dirt, debris and other materials can decrease the effectiveness of many chemical disinfectants.
- Always progress **from the least soiled areas to the most soiled areas** and from **high to low areas**, so that the dirtiest areas and debris that fall on the floor will be cleaned up last.
- **Dry sweeping** (*jharoo*), mopping and dusting should be avoided to prevent dust, debris and microorganisms from getting into the air and landing on clean surfaces.
- **Follow mixing (dilution) instructions** for disinfectants. Too much or too little water may reduce the effectiveness.
- **Written cleaning schedules** should be made by labour room incharge.

Cleaning Methods

Make sure that the staff is educated about the frequency of cleaning, with the type of cleaning method used at each site, and for each type of equipment and surface.

Use wet mopping with:

- **Single-bucket (basin) technique:** One bucket of cleaning solution is used. The solution must be changed when dirty. The killing power decreases with the increased load of soil and organic material present.





- **Double-bucket technique:** Two different buckets are used, one containing a cleaning solution and the other containing rinse water. The mop is always rinsed and wrung out before it is dipped into the cleaning solution. The double-bucket technique extends the life of the cleaning solution (fewer changes required), saving both labor and material costs.

Do Not Use Formaldehyde/Formalin

- Do not use disinfectant fogging (e.g., fumigation with dilute formaldehyde (formalin) solutions to reduce microbial contamination of environmental surfaces such as walls, ceilings and floors.
- It is not effective, is time-consuming (requires 24 hours) and the fumes are toxic (irritating to mucous membranes of the nose and eyes).

Scrubbing with a disinfectant and cleaning is a safer, quicker and more effective way to reduce microbial contamination on these surfaces.

The detailed guideline is below.

Site, Areas, Equipment	Cleaning schedule and procedure
Walls, windows, ceilings and doors, including door handles	<ul style="list-style-type: none"> • Spot clean when visibly dirty with a damp cloth, detergent and water. • Usually, routine damp dusting is adequate; disinfection not required.
Delivery table, bed stand, couch, frames, table, I/V stand, wheelchair, dressing trolleys, telephones, etc.	<ul style="list-style-type: none"> • Clean with detergent and water and dry. • Wipe with 0.5% sodium hypochlorite and allow to dry. • Should be done on daily basis.
Chairs, lamps, tables, tabletops, beds, handrails, grab bars, lights, tops of doors and counters	<ul style="list-style-type: none"> • Wipe daily and whenever visibly soiled with a damp cloth, containing disinfectant cleaning solution. • Immediately disinfect when contaminated.
Mattress / pillows (always cover with plastic covers)	<ul style="list-style-type: none"> • Clean with detergent and water between patients. • Wipe over with disinfectant 0.5% sodium hypochlorite. • Discard pillow if cover of pillow is damaged. • Change the cover of the mattress if torn.
Noncritical equipment (e.g., stethoscopes and	<ul style="list-style-type: none"> • Wipe daily and whenever visibly soiled with a damp cloth, detergent and water.

blood pressure cuffs)	<ul style="list-style-type: none"> • If equipment visibly soiled with blood or other body fluids or the patient is under contact precautions, it should be cleaned AND disinfected before reuse.
Floors	<ul style="list-style-type: none"> • Daily and as needed with a wet mop, detergent and water. • Disinfectant needed, when contaminated. • Mop should be disinfected and kept dry after use
Sinks	<ul style="list-style-type: none"> • Scrub daily or more often as needed. • Use SEPARATE mop, cloth, brush and disinfectant cleaning solution. • Rinse with water.
Toilets and latrines	<ul style="list-style-type: none"> • Scrub daily or more often as needed. • Use SEPARATE mop, cloth, brush and disinfectant cleaning solution.
Curtains	<ul style="list-style-type: none"> • Change and clean curtains according to the routine schedule and when visibly soiled.
Soiled linen	<ul style="list-style-type: none"> • Collect soiled linen daily (or more often as needed) in closed, leakproof containers.
Waste containers	<ul style="list-style-type: none"> • Clean contaminated waste containers after emptying each time with proper precautions. • Clean non-contaminated waste containers when visibly soiled and at least once a week. • Use a disinfectant cleaning solution and scrub to remove soil and organic material.

The delivery tables, baby resuscitation tables, trolleys, stands resuscitation trays, accessories should be regularly cleaned , disinfected and dried after each use.

Ensure that cleaning of spills of blood, body fluids and other potentially infectious fluids is IMMEDIATE, with trained personnel. Any incident involving patients that need or needed potential isolation measures, or suspected outbreak should be efficiently reported.

In the event of a spill, the following spill clean-up procedure should be used:

For small spills

- Wear utility or examination gloves
- Remove visible material using a cloth soaked in a 0.5% chlorine solution
- Wipe clean with a disinfectant cleaning solution.

For large spills

- Cordon off the area so that patients and staff do not accidentally step on the spill.
- Wear utility gloves and protective clothing, including face and eye protection if indicated.

- Contain the spill with cloth or paper towels or any absorbent material. Use an appropriate disinfectant (0.5% Chlorine solution) over the paper towels (absorbent material) and the immediate surrounding area.
- Apply disinfectant concentrically beginning at the outer margin of the spill area, working toward the centre.
- Mop up the solution.
- After the appropriate amount of time (e.g. 30 min), clear away the materials.
- Do not use hands for collection of glass and other materials. If there is broken glass or other sharps involved, use a dustpan or a piece of stiff cardboard to collect the material and deposit it into a puncture-resistant container for disposal.
- Disinfect the area of the spillage.
- Clean as usual with detergent and water.

2. Maintain Hand Hygiene

Wash hands with soap and water when visibly soiled, otherwise use **hand rub**.

Before handwashing, remove ALL wrist and hand jewellery. Keep fingernails short and clean.

The purpose of handwashing is to mechanically remove soil and debris from the skin, and reduce the number of transient microorganisms. **Handwashing with plain soap and clean water is as effective as washing with antimicrobial soaps.** In addition, plain soap causes less skin irritation.

Handwashing should be done before:

- Examining a client/patient
- Wearing gloves for any routine procedure/examination

Handwashing should be done after:

- Any situation in which hands may become contaminated, such as:
 - Handling soiled instruments and other items,
 - Touching mucous membranes, blood, or other body fluids (secretions or excretions), and
 - Having contact with a client
- Removing gloves

Perform Antiseptic Hand Rub before touching each client. Use of an antiseptic hand rub is more effective in killing transient and resident flora than handwashing with antimicrobial agents or plain soap and water. It is quick and convenient to perform, and gives a greater initial reduction in hand flora. Antiseptic hand rubs also contain a small amount of an emollient such as glycerin, propylene glycol, or sorbitol that protects and softens skin.

Making antiseptic handrub: A non-irritating, antiseptic hand rub can be made by adding glycerin, propylene glycol, or sorbitol to alcohol (2 ml in 100 ml of 60-90 percent ethyl or isopropyl alcohol solution). Use 5 ml (about 1 teaspoonful) for each application, making sure that it comes into contact with all surfaces of the hands. Rub hands together vigorously, paying particular attention to the tips of the fingers, the thumbs and the areas between the fingers, until the solution has evaporated and the hands are dry (15-30 seconds).

DO NOT USE HANDRUB in case hands are visibly soiled, or potentially grossly contaminated with dirt or organic material. They must be washed with liquid soap and water.

If single use towels are not available, air dry hands.

An emollient hand cream or any vegetable oil can be applied to protect skin from the drying effects of regular hand decontamination. In case of irritation, try a different product or just plain instead of carbolic or medicated soaps.

Popular commercial products (such as Safeguard, Bodyguard, Lifebouy) have no proven extra efficacy than normal soap. These may alter hand flora increasing resistance of organisms.

See figure for handwash and hand rub on next page

Method of Handwashing

Wash hands only when visibly soiled! Otherwise, use handrub!

Duration of procedure: 40-60 sec.



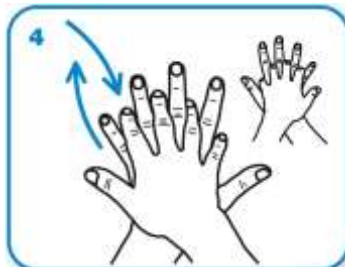
Wet hands with water



Apply enough soap to cover all hand surfaces



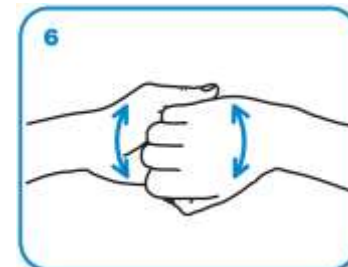
Rub hands palm to palm



Right palm over left dorsum with interlaced fingers and vice versa



Palm to palm fingers interlaced



Backs of fingers to opposing palms with fingers interlocked



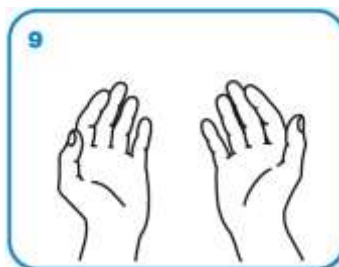
Rotational rubbing of left thumb clasped in right palm and vice versa



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



Rinse hands with water



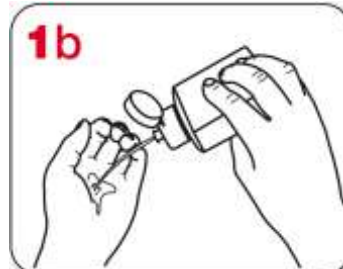
And your hands are safe

Method of HandRub

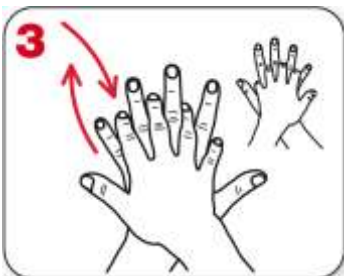
Wash hands only when visibly soiled! Otherwise, use handrub!
Duration of procedure: 30 sec.



Apply a handful of alcohol handrub in a cupped hand and cover all surfaces



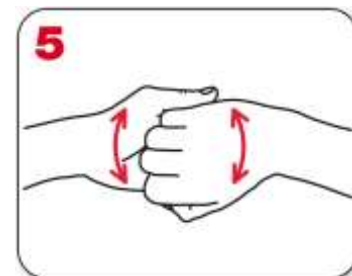
Rub hands palm to palm



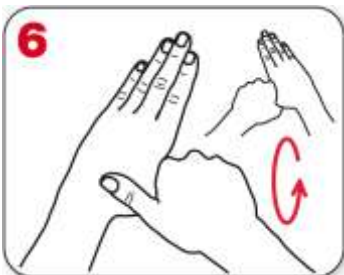
Right palm over left dorsum with interlaced fingers and vice versa



Palm to palm fingers interlaced



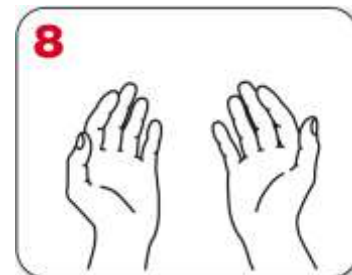
Backs of fingers to opposing palms with fingers interlocked



Rotational rubbing of left thumb clasped in right palm and vice versa



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



And your hands are safe

3. Use Personal Protective Equipment (PPE)

Personal protective equipment (PPE) are essential for protecting patients/clients and health care providers from micro-organisms in the health care setting.

The Labour Room should have ready to use PPE at ALL times. These include, but are not limited to gloves, masks/respirators, eyewear, (face shields, goggles or glasses), caps, gowns, aprons and other items. These must be used by doctors, paramedics and other staff in the labour room. The dress for labour room should be changed before entering the labour room.

The following principles guide the use of personal protective equipment in the LR:

- PPE should be chosen according to the risk of exposure.
- Do not share personal protective equipment.
- Change personal protective equipment completely, as needed and thoroughly wash hands each time you leave a patient to attend to another patient.
- Remove PPE before leaving labour room.
- Discard the used PPE in appropriate disposal bags or decontaminate the reusable PPE.

Gloves protect hands of health care workers from infectious materials and protect clients from microorganisms on health care providers' hands.

There are three types of gloves:

1. Surgical gloves: These are used when there will be contact with the blood stream or with tissues under the skin (for example pelvic examination)

2. Examination gloves: These are used when there will be contact with intact mucous membranes or where the primary purpose of using gloves is to reduce the health care providers' risk of exposure. These gloves should be disposed off immediately after use.

3. Utility gloves: These are used for handling contaminated items, medical or chemical waste and for performing cleaning activities.



- Wear elbow length gloves in routine (clean, non-sterile), when touching blood, body fluids, secretions, excretions or mucous membranes.
- Change gloves between contacts with different patients.
- Change gloves between tasks/ procedures on the same patient to prevent cross-contamination between different body sites. Hand decontamination (washing or alcohol rub) will be required between such tasks.
- Remove gloves immediately after use and before attending to another patient.
- Wash hands immediately after removing gloves. Use a plain soap, antimicrobial agent or antiseptic hand rub.
- Elbow length gloves should be used for deliveries and C-Sections
- Disposable gloves should not be reused, but should be disposed.

Double Gloving

Double gloving reduces the rate of HBV/HCV transmission to the HCP coming into contact with body fluids by 10% more than with single gloves.

Double gloving is indicated when:

- Large amounts of blood or other body fluids (e.g., vaginal deliveries and cesarean sections) is expected.
- Risk of contracting blood borne pathogens, such as HCV, HBV, HIV, is high (>5% prevalence).

Use Elbow-length (Gauntlet) Gloves

Blood contact with the skin and mucous membranes of providers occurs in 25% of vaginal deliveries and 35% of cesarean sections. In addition, large volumes of amniotic fluid contaminated with blood are routine in obstetrics.

Where the hand and forearm need to be inserted into the vagina (manual removal of a retained placenta) or deep into the uterus to deliver the infant's head (cesarean section), elbow-length, "gauntlet" gloves, help protect the provider from significant blood and amniotic fluid contamination. The mother will be protected as well.

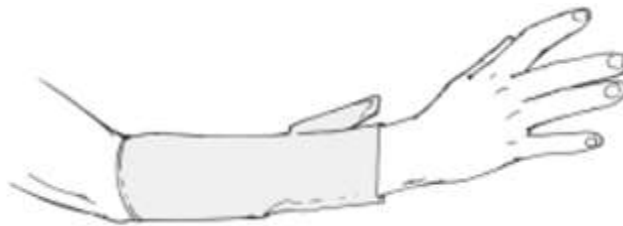
If gauntlet gloves are not available, an inexpensive, effective alternative can be easily made from sterile surgical gloves. The steps for making them are:

- STEP 1: Perform surgical handscrub, including the forearms up to the elbows, as detailed in Chapter 3 using an alcohol-based antiseptic agent.

- STEP 2: Cut the four fingers completely off each glove just below where all the fingers join the glove.



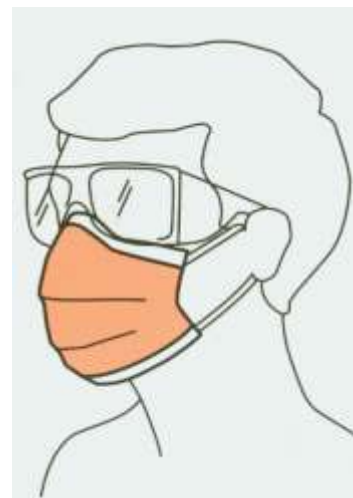
- STEP 3: Put fingerless sterile or high-level disinfected gloves on both hands and pull up onto the forearms.



- STEP 4: Put intact sterile or high-level disinfected surgical gloves on both hands so that the distal (lower) end of the fingerless glove is completely covered .



Masks should be large enough to cover the nose, lower face, jaw, and facial hair. They are worn in an attempt to contain the moisture droplets expelled when health care providers or surgical staff speak, cough, or sneeze, as well as prevent accidental splashes of blood or other contaminated body fluids from entering the health care provider's nose or mouth. Unless the masks are made of fluid-resistant materials, they are not effective in preventing either. Wear surgical masks rather than cotton material or gauze masks. Surgical masks have been designed to resist fluids to varying degrees depending on the design of the material in the mask. Do not reuse disposable masks.



Eyewear protects health care providers in the event of an accidental splash of blood or other body fluid by covering the eyes. Eyewear includes clear plastic goggles, safety glasses, etc. Prescription glasses or glasses with plain lenses also are acceptable. Masks and eyewear should be

worn when performing any task in which an accidental splash into the face is likely (e.g., performing a surgical procedure or cleaning instruments). If disposable, discard appropriately. If they are reusable, decontaminate them according to the manufacturers' instructions. Use eyewear as a routine even for small surgery.

Gowns (clean, non-sterile) should be worn to protect the skin and prevent soiling of clothing during procedures that are likely to generate splashes of blood, body fluids, secretions or excretions. Impermeable gowns are preferable. A plastic apron may be worn on top of the gown to protect exposure to blood, body fluids, secretions and excretions.

Surgical gowns made of fluid-resistant materials are important in keeping blood and other fluids, such as amniotic fluid, away from health care providers. Lightweight cotton gowns, which are commonly available, offer little protection. Under these circumstances, if large spills occur, the best thing to do is to take bath as soon as possible.



Caps are used to keep the hair and scalp covered so that flakes of skin and hair are not shed into the wound during surgery. Caps should be large enough to cover all hair. The other purpose is also to protect the wearer from blood or body fluid splashes and sprays.

Footwear is worn to protect feet from injury by sharps or fluids. Closed shoe or slipper should be worn. These must be kept clean and free of contamination from blood or other body fluid spills.

These must be washed and decontaminated with 0.5% Chlorine solution.

Disinfect/Discard Used Personal Protective Equipment

PPE	Disinfect	Precautions
Standard surgical mask Use disposable only		Discard in appropriate waste bag
Eye protector / goggles / face shield	Clean with detergent and water, dry, soak in 1% hypochlorite solution for 20 minutes and rinse and dry.	
Gown and cap	Safely send to laundry	
Apron	Clean with detergent and water, dry, disinfect with 0.5% bleach solution	
Gloves		Discard in the appropriate waste bag
Reusable footwear	Clean with detergent and water, dry, disinfect with 0.5% bleach solution	Store dry.

4. Prevent Needle/Sharp Injuries

Sharps are defined as comprising of needles, syringes, scalpels, blades, glass i.e. anything that may cause puncture or cuts. Take care to prevent injuries when using sharps.

- Use needle and syringe only once
- Keep handling to a minimum. **DO NOT** pass directly from hand to hand.
- **Do not recap or bend needles** prior to disposal.
- Do not disassemble the needle and syringe after use.
- **Mutilate** prior to disposal to prevent any unauthorized reuse by using needle cutters/destroyers.
- Dispose off the used mutilated disposable syringes and needles, scalpel blades and other sharp items in a **puncture-resistant container with a lid that closes.**

The puncture proof sharp containers can be made from cardboard box, used tin box, or hard plastic bottles that are closed.

Make only a small opening in the box for disposing off sharps. These sharp containers should be available in dressing/injection rooms, EPI vaccination rooms, examination rooms, labor and birth rooms, wards and laboratories, i.e. such containers must be located in ALL patient care and laboratory areas where they are very easily accessible to personnel working in these locations. They should be closed and immediately replaced when $\frac{3}{4}$ full.



5. Ensure Availability and Use of Clean Supplies

Clean supplies should be available at all the necessary sites in ready to use form. These include gauze or cotton wool, instruments, pick-up forceps in separate dry containers without antiseptics.

6. Use Clean Linen. Collect and Clean Soiled linen Properly

Always use separate clean linen for each client.

The following steps should be taken to collect soiled linen:

- The person cleaning the linens must be wearing utility gloves (elbow length), eye protection, impermeable apron and gumboots.
- Take extreme care during sorting a soiled linen may contain sharps (scalpels, sharp-tipped scissors, hypodermic and suture needles and sharp-tipped towel clips).
- The linen should be collected in leak proof containers/plastic bags without being pre-soaked.
- Cloth bags are adequate for collection and transport for majority of the patient care linen.
- Confine the soiled linen to designated areas (interim storage area) until transported to the laundry/area.
- During collection and transporting, handle as little as possible and with minimum contact to avoid accidental injury and spreading of microorganisms.
- Consider all cloth items (e.g., surgical drapes, gowns, wrappers) used during a procedure as infectious. Even if there is no visible contamination, the item must be laundered.

7. Handle used instruments Carefully and Perform Decontamination

Handle patient care equipment soiled with blood, body fluids secretions or excretions with care in order to prevent exposure to skin and mucous membranes, clothing and the environment.

The decontamination of instruments and other articles must be performed properly at the site of use immediately after it is used and before cleaning. **A new chlorine solution should be prepared at the beginning of each day.** Plastic containers should be used for decontamination.

Chlorine solution 0.5% is prepared by mixing 1 part of 5% bleach with 9 parts of water.

Used Patient Care Equipment

Equipment	Standard Procedure	Comments
Soiled patient care equipment, e.g. stethoscope, blood pressure apparatus	Clean with detergent and water any dry. May be wiped with sodium hypochlorite 1-2% and dried after cleaning.	Always clean between patient use.
Cuffs of blood pressure apparatus	Clean with soap and water followed by appropriate disinfectant. For example, wash in hot water with detergent If material is not washable, wipe with sodium hypochlorite 1-2% and dry after cleaning.	Ideally dry in sun after washing. If set aside for isolation room: should remain in the isolation room until discharge of the patient when it must be decontaminated appropriately.
Instruments	Instruments and other items should be soaked in the 0.5% chlorine solution for at least 10 minutes before being taken to the washing/preparation room. Items taken to the washing/preparation room are carried in bucket or any other leak proof container.	
AMBU bag and mask	Clean with detergent, dry and send to the sterilizing service department.	Change mask after each patient.

8. Have Separate Area for Instrument Cleaning

The area for cleaning of instruments must be separate from Labour Room.

Use at least 1 deep sink/basin with running water for washing instruments and a counter/separate space for instrument drying, and a closed shelf for storing clean items.

Ensure that contaminated linen and medical waste are not brought into this room/space. Clean items are kept on one side of the room and dirty items on the other in a way that dirty and clean items do not have any contact or any chance of mixing. Label areas accordingly.

Keep area free from spills and water on the floor, and ensure there are no electric items near the water area.

The person cleaning instruments must comply with following recommendations:

- Wear utility gloves, eyewear protection or face shield, plastic aprons and gumboots or enclosed shoes
- Use a soft brush, detergent (without acid or ammonia) and 0.5% chlorine solution in the detergent water
- Scrub instruments and other items under the surface of water completely removing blood and other foreign matter
- Disassemble instruments and other items with multiple parts, and clean in the grooves, teeth and joints with a brush
- Rinse the instruments and other items thoroughly with water
- Allow instruments and other items to air dry
- Wash hands with running water and soap for 10-15 seconds and dry

9. Conduct Instrument Processing

The instrument processing area should be well illuminated and have at least one autoclave/boiler in working order. The processing area should have a place (such as closed cabinets) to store a sterile and/or HLD supplies and equipments. Access to this area should be limited.

Sterilization is the destruction of all micro-organisms and should be done using an autoclave or an autoclave pressure cooker in working order with working thermometer and working pressure gauge. Ensure:

- Instruments are properly prepared and placed in the sterilizer
 - Laid out in a metal box with holes or wrapped in two double layers of muslin or cotton cloth or two layers of Kraft paper
 - Sufficient space between packets/boxes exists to allow steam to circulate
 - All jointed instruments are in an unlocked position and instruments composed of sliding parts are disassembled
 - A 7 to 8 cm space exists between the packets and the upper portion (in case of a vertical autoclave) or the front portion (in case of a horizontal autoclave)
- The instrument is exposed to temperature of 121°C (250°F) and a pressure of 1.5atm (106 kPa or 15 lbs/in²) for a period of 30 minutes in the autoclave
- The instrument is exposed to a pressure of 70 – 90 lbs for a period of 35 minutes (in the autoclave pressure cooker)

- The material is dry when removed following within 2 weeks
- Unwrapped items are used immediately

In case, autoclave is not available for sterilization, then use boiler. Boiling is a good HLD process and should be done as follows:

- Immerse all clean and disassembled instruments totally in water
- Close the lid of the container
- Boil the instruments for 20 minutes starting from the time a rolling boiling begins
- After 20 minutes, remove the instruments with HLD or sterile forceps and store them in HLD containers
- Do not leave boiled instruments in the water that has stopped boiling

10. Develop Shelf-life System

A shelf-life system to store sterile or HLD items should be in place. Which means that sterile packs and/or containers have expiration dates on them. The sterile packs should be free of tears, dampness, excessive dust and gross oil. Follow the rule of “first in – first out”.

11. Waste Collection and Disposal

The person collecting waste must wear utility gloves and closed shoes. Waste is to be collected in leak proof containers which should be transported for disposal when $\frac{3}{4}$ full.

There are three types of wastes:

- General waste (recyclable and non-recyclable)
- Infectious waste
- Sharps waste

Waste should be segregated into **Infectious** and **Non-Infectious**

a. Collect Non-Infectious general waste in Green Bucket with Green Bag. This includes:

Paper and packaging
 Foods, fruits and vegetables
 Juice and Food Boxes
 Injectables
 Glass bottles (but not broken glass)
 Plastic drips

Contents can be recycled or composted.

b. Collect infectious waste in Red Bucket with Lid with Red Bag. This includes:

- Human tissues
- Blood bags and all blood products
- Soiled bandages, gauze
- Urinary catheter tubing and bag, IV tubing
- Surgical drains and bags, NGT, ET tube
- Used IV and arterial catheters
- Diapers

Bag should be incinerated as it is.

c. Collect Sharps Waste in sharp containers. This includes:

- Needles
- Scalpels
- Knives
- Blades
- Broken Glass

Sharps waste should be incinerated together with the sharps container.

General principles

- Easy access to supply of color-coded bags and containers
- Fill bags to maximum of 3/4 capacity.
- Do not put hands inside the bags / containers.
- Avoid the pressing of filled bag.
- The bags to be tied and handled by neck only while transportation.
- Staff must wear protective clothing, gloves, mask, aprons etc while handling infected waste.
- Never allow any person to put their hands inside the bags.
- If bags tear, they should be replaced / re-bagged in new clean bags

Primary Transportation of Buckets and Containers in the Labour Room

- Primary transportation starts from patient bedside to primary storage area in the Labour Room. However in some hospitals, there is only one general storage area for the entire hospital. Some hospitals do not have any storage area and the waste is directly taken to the disposal point (incinerator or burial site).
- Small wheeled trolley should be used for primary transportation.
- Trolley should be dedicated only to transportation of waste
- Trolley should be cleaned regularly

Primary storage area:



- Primary storage area is available in the premises of labour room and can be a small room in a corner with good ventilation, if possible, and a door to the outside.
- Primary storage area should contain large bins with color coded liners
- Bin with red liner and lid for infectious waste
- Bin with green liner for general and non-recyclable waste
- Bin with white liner for general and recyclable waste

Bins may be any color but color coded bags / liners should be proper color. Bags should be used to maintain the segregation.

The waste of the green bucket should now be sorted into two categories in the primary storage area.

- Recyclable waste goes into the bin with the white liner
- Non-recyclable waste goes into the bin with the green liner

The waste of the red buckets or sharps container must NEVER be sorted.

Secondary Storage area:

From the primary storage area, waste should be transported in a dedicated trolley to the main secondary storage area of the facility from where waste is taken for final disposal.

Management of liquid waste

Drain liquid wastes (body fluids, etc) into the toilet. Decontaminate instruments such as bed pans after each use by using 0.5% Chlorine solution for at least 10 minutes.

The worker handling waste MUST wash hands with soap and water after removing gloves and other personal protective equipment. Also, the waste collection area must be kept clean and free of spills.

The waste should be disposed of in the following manner:

- Liquid waste (blood, urine, faeces and other body fluids) should be emptied in a toilet after decontamination with bleach, from which they could be drained into a sewer system. The toilet should be rinsed with water after the waste has been emptied.
- Containers with sharps should be sent for **incineration** or **burial**.
- Solid waste (used dressings and other materials contaminated with blood and organic matter) should be sent for **incineration** or **burial**.
- Body tissue or placenta should be sent for **burial**.

12. Prevent infection in neonates

High-risk low birth weight infants, if given IV immune globulin at birth may prevent sepsis.

Because invasive disease due to GBS often manifests within the first 6 h of life, women who have previously given birth to an infant with GBS disease should receive intrapartum antibiotics, and women who have symptomatic or asymptomatic GBS bacteriuria during pregnancy should receive antibiotics at the time of diagnosis and intrapartum

Monitoring Tools for Labour Room

Performance Standard	Verification Criteria	Yes, No	Comments
1. Cleanliness of the Facility	Visible dust, cobwebs, blood, trash, used needles and syringes are absent		
	The delivery tables are cleaned with 0.5% bleach after each delivery		
	The trolleys are cleaned with 0.5% bleach after each delivery		
	The cleaning materials: 0.5% bleach, brushes, mops are available		
2. Adequate supply of safe water	Observe the provision of water for the Labour Room is sufficient.		
3. Hand Hygiene is practiced	Verify and observe		
	<ul style="list-style-type: none"> ▪ Sink available for hand washing in the Labour Room 		
	<ul style="list-style-type: none"> ▪ Elbow operated taps 		
	<ul style="list-style-type: none"> • Soap is available 		
	<ul style="list-style-type: none"> • Antiseptic hand rub is available 		
	<ul style="list-style-type: none"> • Hand rub/handwash is performed before touching each patient 		
	<ul style="list-style-type: none"> • Handwash is done after situations where hands are contaminated 		
	Elbow length gloves are used where applicable		

	Masks, eyewear, gowns are worn in routine		
4. Availability and usage of Personnel protective equipment	Verify whether the following are available and ready for use:		
	• Disposable gloves		
	• Gowns		
	• Plastic aprons		
	• Eye wear		
	• Close-toed shoes		
	• Utility gloves for cleaning instruments		
	• PPE is cleaned and disinfected as per guideline		
5. Type and use of Containers for Sharps	Verify whether:		
	• The sharps containers are puncture-proof (cardboard box) with only small opening for disposing of syringes with needle		
	• Sharp containers are all less than $\frac{3}{4}$ full		
	• Empty and new containers are nearby and ready for use		
	Guidelines for using sharps and disposal are observed.		
	Sharps are not handed from one person to the other directly		
6. Availability and use of	Verify whether:		

clean supplies			
	<ul style="list-style-type: none"> Gauze and cotton is stored in dry containers without an antiseptic 		
	<ul style="list-style-type: none"> Instruments and other items are stored in dry containers without antiseptics 		
	<ul style="list-style-type: none"> Pick-up forceps are stored in dry containers without antiseptics 		
	Sterilized instruments are packaged properly, arranged and labelled for use.		
	Once a sterilised set is opened, all instruments are sent for cleaning, decontamination and sterilization.		
	Instruments are not reused after using chemical disinfectants.		
7. Decontamination of Instruments	Verify whether, <ul style="list-style-type: none"> Concentration of chlorine solution is 0.5%: 		
	Liquid Chlorine:		
	<ul style="list-style-type: none"> A new chlorine solution is prepared at the beginning of the day 		
	<ul style="list-style-type: none"> Plastic containers are used for decontamination 		

	<ul style="list-style-type: none"> • Instruments and other items are soaked in the 0.5% chlorine solution for at least 10 minutes 		
	<ul style="list-style-type: none"> • Items are taken to prep room in bucket or leak proof containers 		
8. Separate Area Allocated for Instrument Cleaning	Verify whether		
	<ul style="list-style-type: none"> • Area for cleaning instruments is separated from the procedure areas, is clearly marked – sign displayed in local language 		
	<ul style="list-style-type: none"> • Dirty and clean items do not have contact, and areas are clearly labelled in local language 		
	<ul style="list-style-type: none"> • There is at least one deep sink/basin with running water for washing instruments 		
	<ul style="list-style-type: none"> • There is a counter/separate space for instruments to dry 		
	<ul style="list-style-type: none"> • A closed shelf area exists for storing clean items 		
	<ul style="list-style-type: none"> • Contaminated linen or medical waste are not brought into this room 		
	<ul style="list-style-type: none"> • No electric items are near the water area 		
	<ul style="list-style-type: none"> • No spills or water on the floors 		
	<ul style="list-style-type: none"> • Clean items are on one side of the room, dirty items on the other 		

9. Cleaning of Instruments and Other Items	Verify whether the person cleaning the instruments complies with the following steps:		
	Wears:		
	• Utility gloves		
	• Eyewear protection or face shield		
	• Plastic apron		
	• Gumboots or enclosed shoes		
	Uses:		
	• Soft brush		
	• Detergent (liquid or powder, without acid or ammonia)		
	• 0.5% chlorine solution in the detergent water		
	• Scrubs instruments and other items under the surface of water, completely removing all blood and other foreign matter		
	• Disassembles instruments and other items with multiple parts, and cleans in the grooves, teeth and joints with a brush		
	• Rinses the instruments and other items thoroughly with clean water		
	• Allows instruments and other items to air-dry, or dries with a clean towel (if autoclaving)		
• Washes hands with running water and soap			

	for 10-15 seconds and dries		
10. Instrument Processing	Verify whether instrument processing area:		
	<ul style="list-style-type: none"> • Is well illuminated 		
	<ul style="list-style-type: none"> • Has at least one autoclave/boiler in working order 		
	<ul style="list-style-type: none"> • Has an area to store sterile and/or HLD supplies, instruments and equipment with limited access to the storage area or closed cabinets 		
11. Sterilization/HLD Process is performed Properly	Verify whether the HLD cycles listed below are followed:		
	Boiling		
	<ul style="list-style-type: none"> • All cleaned, disassembled instruments are totally immersed in water before lid is closed 		
	<ul style="list-style-type: none"> • The lid is closed 		
	<ul style="list-style-type: none"> • Do not add anything to the pot after timing starts 		
	<ul style="list-style-type: none"> • Instruments are boiled for 20 minutes <u>starting from the time a rolling boil begins</u> 		
	<ul style="list-style-type: none"> • After 20 minutes, instruments are removed with HLD or sterile forceps and stored in HLD containers 		

	<ul style="list-style-type: none"> Boiled instruments are not left in water that has stopped boiling 		
	OR		
	Sterilization		
	<ul style="list-style-type: none"> The autoclave or an autoclave pressure cooker is available and in working order with: <ul style="list-style-type: none"> Working thermometer Working pressure gauge (autoclave pressure cooker) 		
	<ul style="list-style-type: none"> Instruments are properly prepared and placed in the sterilizer <ul style="list-style-type: none"> Laid out in a metal box with holes or wrapped in two double layers of muslin or cotton cloth or two layers of Kraft paper Sufficient space between packets/boxes exists to allow steam to circulate All jointed instruments are in an unlocked position and instruments composed of sliding parts are disassembled A 7 to 8 cm space exists between the packets and the upper portion (in the case of a vertical autoclave) or the front portion (in case of a horizontal autoclave) 		
	<ul style="list-style-type: none"> The material is exposed to temperature of 121°C (250°F) and a pressure of 1.5 atm 		

	(106 kPa or 15 lbs/in ²), for a period of 30 minutes (in the autoclave pressure cooker)		
	<ul style="list-style-type: none"> The material is exposed to a pressure of 17-19 lbs for a period of 35 minutes (in the autoclave pressure cooker) 		
	<ul style="list-style-type: none"> The material is dry when removed following sterilization 		
	<ul style="list-style-type: none"> Wrapped sterile instruments are used within 2 weeks 		
	<ul style="list-style-type: none"> Unwrapped items are used immediately 		
12.Shelf-life System is adopted	Verify whether		
	<ul style="list-style-type: none"> Sterile packs and/or containers have expiration dates on them 		
	<ul style="list-style-type: none"> The sterile packs are free of teams. Dampness, excessive dust and gross oil 		
13.Soiled linen is Collected and Cleaned Properly	Verify whether		
	<ul style="list-style-type: none"> Cleaner Wears: <ul style="list-style-type: none"> Utility gloves Eye protection Gumboots or enclosed shoes 		
	<ul style="list-style-type: none"> Collects soiled linen in leak proof containers/plastic bad without being pre- 		

	soaked		
	<ul style="list-style-type: none"> • Takes linen to the laundry in closed containers (buckets, plastic bags or carts) for sorting, washing and drying 		
	Collects linen with extreme care watching out for spills and sharps		
14. Waste Collection and Disposal	Verify whether the person collecting waste complies with the following steps:		
	<ul style="list-style-type: none"> • Wears: <ul style="list-style-type: none"> ○ Utility gloves ○ Eye protection ○ Gumboots or enclosed shoes 		
	<ul style="list-style-type: none"> • Collects waste in leak proof containers 		
	<ul style="list-style-type: none"> • Collects waste the container is $\frac{3}{4}$ full 		
	<ul style="list-style-type: none"> • Assures placentas are double bagged in leak-proof containers 		
	<ul style="list-style-type: none"> • Maintains waste collection area clean and free of spills (walls, tables, floors) 		
15. Waste Disposal	Verify whether:		
	<ul style="list-style-type: none"> • Contaminated liquid waste (blood, amniotic fluid and other body fluids) are first decontaminated and then Emptied into a toilet to be drained into a sewer system: 		
	<ul style="list-style-type: none"> • Solid waste consisting of tissues, placenta is collected for burial 		

	<ul style="list-style-type: none"> Contaminated solid waste consisting of cotton, gauze, bandages are collected for incineration or burial separately 		
	<ul style="list-style-type: none"> General waste is collected and stored entirely separately to avoid mixing with any kind of infectious waste 		
	<ul style="list-style-type: none"> Sharps are collected observing PPE 		
	<ul style="list-style-type: none"> Sharps containers are not on the floor 		
	<ul style="list-style-type: none"> Sharps containers are collected as per routine defined 		
	<ul style="list-style-type: none"> Hand hygiene is observed after handling of containers, bags, or waste in any form 		